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7241-101C1/10209911

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: JESS R. BOOTH et al.

Group Art Unit: 1713

Serial No. 10/036,159

Examiner: MULCAHY, Peter D.

Filed: December 26, 2001

For: Synthetic Thermoplastic  
Composition Articles Made  
Therefrom and Method of  
Manufacture

DECLARATION OF GERALD F. BREM, PH.D.

Hon. Commissioner for Patents  
P. O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

I, GERALD F. BREM, declare as follows:

1. I am the director of R&D for the Assignee of the above-identified application and have a place of business at 5 Hutton Centre Drive, Suite 700, Santa Ana, California 92707.
2. I engaged Noble Polymers to create a plaque approximately 1/8" thick made from clarified polypropylene and 2% by weight of material falling within each of claims 32 through 86 and 94 through 95 presented by supplemental amendment.
3. In response to the request, I have received and attach hereto a report of Keith Smith, manufacturing Engineer, Noble Polymers describing the creation of the plaque ordered and a color printer reproduction of a photograph of the plaque received in.

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response to the foregoing request. Also depicted for reference is control plaque with no additive. The photograph demonstrates the clarity of the product so manufactured with the legends being on the paper beneath the two plaques.

4. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date:

February 23, 2004

  
GERALD F. BREM, PH.D.  
Director of R&D  
Hi-Tech Environmental Products, LLC



**To:** Jerry Bram  
**From:** Keith Smith  
**CC:** Nicholas L. Tartaglione  
**Date:** February 19, 2004  
**Re:** Compounding and Molding Trials

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**Compounding**

Grade	Description	Ratio
Huntsman P5MK-047	Clarified Polypropylene 20MFI	98%
VLR8001595 Lot #C7835.1	Vitrolite Powder	2%

The materials in the table above were physically dry blended for 10 minutes. The mixture was melt compounded on a 34mm co-rotating twin screw Leistritz extruder. The operating temperature profile of the extruder was 400 °F. The melt was stranded, placed into a cooling water bath, and pelletized.

**Injection Molding**

Plaques of the control (Huntsman P5MK-047) and the compounded material were molded using the D412 test mold on a 120 ton Nissei injection molding machine. The temperature profile of the injection molding machine was 420 °F for both the control and compounded material. All processing conditions were the same for both of the molded materials.

Keith Smith

A handwritten signature in black ink, appearing to read "Keith Smith", written over a horizontal line.

Manufacturing Engineer

*Member of the Cascade Family of Companies*

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0.125 INCH THICK  
COLORLESS, TRANSPARENT  
POLYPROPYLENE PLAQUE  
WITH NO ADDITIVE

0.125 INCH THICK  
COLORLESS,  
TRANSPARENT  
POLYPROPYLENE PLAQUE  
WITH 2.0 WEIGHT PERCENT  
AL-SI GLASS